MATERIAL SAFETY DATA SHEET



PRODUCT IDENTIFICATION MANUFACTURER'S NAME ProSoCo, Inc. **EMERGENCY TELEPHONE NUMBERS:** AND ADDRESS: P.O. Box 171677 8:00 AM - 5:00 PM CST Monday-Friday: 913/281-2700 Kansas City, Kansas 66117 **NON-BUSINESS HOURS (INFOTRAC):** 800/535-5053 PRODUCT TRADE NAME: Enviro Klean® BioKlean™ - Cleaner II HAZARDOUS INGREDIENTS **CHEMICAL NAME** (COMMON NAME) CAS NO. NFPA CODE **ACGIH TLV/TWA** OSHA PEL/TWA Contains no hazardous ingredients greater than 1%. III PHYSICAL DATA **EVAPORATION** VAPOR VAPOR **BOILING PRESSURE** DENSITY RATE POINT (°F) (1=Butyl Acetate) (Air=1) (mm Hg) N/A N/A N/A N/A **BULK DENSITY** SOLUBILITY **APPEARANCE** (Lbs./Gal.) IN WATER AND ODOR BioKlean™ - Cleaner 1.060 100% White powder IV FIRE AND EXPLOSION HAZARD DATA FLASH POINT (METHOD): Not applicable. **FLAMMABLE LIMITS:** Not applicable.

SPECIAL FIRE FIGHTING PROCEDURES: None.

Not applicable.

EXTINGUISHING MEDIA:

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat generated during a fire may cause rapid decomposition of sodium percarbonate. Oxygen evolved from decomposition will accelerate the burning of other combustible materials. Oxygen evolved may also burst tightly sealed containers. Damp sodium percarbonate in contact with organic materials such as cloth, wood, paper, etc. may cause spontaneous combustion of these materials.

V HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Oral, skin, eyes.

CARCINOGEN INFORMATION: Not listed (OSHA, IARC, NTP).

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: No applicable information found.

EFFECTS OF OVEREXPOSURE: Irritation of eyes, skin, and upper respiratory tract.

EYE CONTACT: May irritate eyes, producing redness and swelling of the conjunctiva.

SKIN CONTACT: Can cause irritant dermatitis.

INHALATION: Dust is irritating to upper respiratory tract.

INGESTION: Swallowing large quantities may cause nausea and vomiting.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Immediately flush exposed area with water for at least 15 minutes, holding eyelids apart to ensure

flushing of the entire eye surface. If irritation persists, get medical attention.

SKIN CONTACT: Immediately flush exposed area with water. If irritation persists, get medical attention. Remove

contaminated clothing. Launder contaminated clothing before reuse.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If

breathing is difficult, give oxygen. Get medical attention.

INGESTION: Dilute by giving large amounts of water or milk if immediately available. If person is unconscious, do

not give anything by mouth. Get medical attention.

GENERAL: Treatment should be based on the sound judgment of the physician and the individual reactions of

the patient.

VI REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Extreme heat and open flame.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids and reducing agents, organics and/or metallic ions may cause

catalytic decomposition.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Sodium carbonate, oxygen and generates heat.

VII SPILL OR LEAK PROCEDURES L. LEAK AND WASTE DISPOSAL PROCEDURES: Wear appropriate NIOSH/MSHA approved full face piece respirator and other protective safety equipment. Shovel or scoop up spilled material and use vacuum truck to pick up residual material for disposal. After all visible traces have been removed, flush the area with large amounts of water. WASTE DISPOSAL METHODS: Dispose of in a manner approved for this material or in an approved waste facility. Consult appropriate federal, state, and local regulatory agencies to ascertain proper disposal procedures. VIII SPECIAL PROTECTION INFORMATION RESPIRATORY PROTECTION: NIOSH/MSHA approved respiratory protection required in the absence of proper environmental control. Respiratory protection program must be in accordance with 29 CFR 1910.134 (see your safety equipment supplier). VENTILATION: Sufficient to maintain airborne concentrations as low as possible. PROTECTIVE CLOTHING: Wear protective clothing and rubber boots to prevent skin contact. PROTECTIVE GLOVES: Natural rubber, or PVC. EYE PROTECTION: Close fitting chemical safety goggles. Do not wear contact lenses because they may contribute to the severity of an eye injury. ER PROTECTIVE EQUIPMENT: Safety shower and eyewash. Personal protective clothing and use of equipment must be in accordance with 29 CFR 1910,133 and 29 CFR 1910,132. IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Wear appropriate safety equipment and clothing. Do not get in eyes, on skin, or on clothing. Do not take internally. Avoid breathing mist. Store in a cool, dry, well-ventilated place. Separate from acids, explosives, and easily ignitable materials.

Never touch eyes or face with hands or gloves that may be contaminated with this product.

Keep container tightly closed when not dispensing product. Use care around spilled, wet material because it will be slippery. Treat empty containers as if they were full.

OTHER	PRECAUT	FIONS: Wash t	Do not get horoughly a	in eyes, on s fter handling	skin or on clothing . Do not eat, drini	. Can cause irritation. c, or smoke in work an	Do not breathe mist. eas.	Do not take
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DISCLAIMER:

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DATE OF PREPARATION: March 25, 1997

MATERIAL SAFETY DATA SHEET



I PRODUCT IDENTIFICATION

MANUFACTURER'S NAME

AND ADDRESS:

ProSoCo, Inc.

P.O. Box 171677 Kansas City, Kansas 66117 **EMERGENCY TELEPHONE NUMBERS:**

8:00 AM - 5:00 PM CST Monday-Friday: 913/281-2700

NON-BUSINESS HOURS (INFOTRAC):

800/535-5053

PRODUCT TRADE NAME:

Enviro Klean® BioKlean™ - Activator

II HAZARDOUS INGREDIENTS

CHEMICAL NAME (COMMON NAME) CAS NO.

NFPA CODE

ACGIH TLV/TWA

OSHA PEL/TWA

Sodium Hydroxide

(Caustic Soda)

1310-73-2

3,0,1,-

2mg/m³

2mg/m³

III PHYSICAL DATA

BOILING

POINT (°F)

VAPOR **PRESSURE** (mm Hg)

VAPOR DENSITY (Air=1)

EVAPORATION RATE (1=Butyl Acetate)

Sodium Hydroxide

1388

42 (1830°F)

Unknown

Unknown

SPECIFIC GRAVITY

SOLUBILITY IN WATER

APPEARANCE AND ODOR

BioKlean™ - Activator

1.584

100%

Clear, odorless

liquid

IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD):

Not applicable.

FLAMMABLE LIMITS:

Not applicable.

EXTINGUISHING MEDIA:

Not appligable.

SPECIAL FIRE FIGHTING PROCEDURES: Use NIOSH/MSHA approved self-contained breathing apparatus where this material is involved in a fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Can react with metals such as aluminum, magnesium, copper, zinc, tin, brass or bronze, which will generate hydrogen gas, which is flammable and/or explosive if ignited.

V HEALTH HAZARD DATA

SKIN CONTACT:

PRIMARY ROUTES OF EXPOSURE: Oral, skin, eyes.

CARCINOGEN INFORMATION: Not listed (OSHA, IARC, NTP).

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: No applicable information found.

EFFECTS OF OVEREXPOSURE: Corrosion of exposed tissues resulting in burns and frequently deep ulcerations.

EYE CONTACT: Can cause severe damage and even blindness very rapidly. Small quantities can result in permanent damage and/or loss of vision.

Causes severe burns, possible deep ulceration and scarring. Prolonged contact destroys tissue. Can cause irritant dermatitis.

INHALATION: Mists are very irritating to upper respiratory tract. Can cause tissue damage to upper respiratory tract.

Can cause pneumoconiosis, including fibrosis.

INGESTION: Results in severe damage to mucous membranes and deep tissues; can result in death on

penetration to vital areas.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Immediately flush exposed area with water for at least 30 minutes, holding eyelids apart to ensure

flushing of the entire eye surface. Get immediate medical attention. If physician is not immediately

available, continue flushing with water. Do not use chemical antidote.

SKIN CONTACT: Immediately flush exposed area with water for at least 30 minutes. Get medical attention. Remove

contaminated clothing. Launder contaminated clothing before reuse. Discard contaminated shoes.

!NHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If

breathing is difficult, give oxygen. Get medical attention.

INGESTION: DO NOT INDUCE VOMITING! Dilute by giving large amounts of water or milk if immediately

available. Give milk of magnesia. If person is unconscious, do not give anything by mouth. Get

medical attention immediately.

NOTE TO PHYSICIAN:

EYES: May cause severe corneal injury or burn. May cause impairment of vision. Stain for evidence of

corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Consult

ophthalmologist.

SKIN: May cause severe burn. If burn is present, treat as any thermal burn.

RESPIRATORY: May cause severe irritation. Administer oxygen if available. Bronchodilator, expectorants, and

antitussives may be of help. (Tracheal and/or esophagoscopic control.)

GENERAL: Consult standard literature. Treatment should be based on the sound judgment of the physician and

the individual reactions of the patient.

VI REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Strong acids.

INCOMPATIBILITY (MATERIALS TO AVOID): Organic materials, concentrated acids, metals such as aluminum, magnesium, zinc, tin, chromium, brass, bronze, or copper. Food, sugars, leather, and wool.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Contact with reactive metals will generate hydrogen gas which is flammable and/or explosive. Contact with various food sugars may form carbon monoxide.

VII SPILL OR LEAK PROCEDURES

SPILL, LEAK AND WASTE DISPOSAL PROCEDURES: Wear appropriate NIOSH/MSHA approved full face piece respirator and other protective safety equipment. Dike area to contain the spill. Remove as much of the spill as possible. Dilute the remainder with large amounts of water, then neutralize with dilute acid. Use vacuum truck to pick up neutralized residual material for disposal. After all visible traces have been removed, flush the area with large amounts of water.

WASTE DISPOSAL METHODS: Dispose of in a manner approved for this material or in an approved hazardous waste facility. Consult appropriate federal, state, and local regulatory agencies to ascertain proper disposal procedures.

VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH/MSHA approved respiratory protection required in the absence of proper environmental control. Respiratory protection program must be in accordance with 29 CFR 1910.134 (see your safety equipment supplier).

VENTILATION: Sufficient to maintain airborne concentrations below the Threshold Limit Values TLV(s).

PROTECTIVE CLOTHING: Wear protective clothing such as rubber boots, PVC clothing, and plastic headgear as required to prevent skin contact.

PROTECTIVE GLOVES: Alkali-resistant such as nitrile rubber, neoprene rubber, natural rubber, or PVC.

EYE PROTECTION: Close fitting chemical safety goggles and full face shield. Do not wear contact lenses because they may contribute to the severity of an eye injury.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eyewash. Personal protective clothing and use of equipment must be in accordance with 29 CFR 1910.133 and 29 CFR 1910.132.

IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Wear appropriate safety equipment and clothing. On not take internally.

Avoid breathing mist. Store in a cool, dry, well-ventilated place. Separate from acids, explosives, organic peroxides, and easily ignitable materials.

Keep containers tightly closed when not dispensing product. Use care around spilled material because it will be slippery. Never touch eyes or face with hands or gloves that may be contaminated with this product. Treat empty containers as if they were full.

OTHER PRECAUTIONS: Do not get in eyes, on skin or on clothing. Can cause severe injury or blindness. Do not breathe mist. Do not take internally. Wash thoroughly after handling. Do not eat, drink, or smoke in work areas.

Comments: Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed vessels and can cause death.

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DATE OF PREPARATION: March 25, 1997

MATERIAL SAFETY DATA SHEET

ProSoCo, Inc.

PL JUCT IDENTIFICATION

MANUFACTURER'S NAME

ProSoCo, Inc.

EMERGENCY TELEPHONE NUMBER: 913/281-2700

AND ADDRESS:

P.O. Box 171677

Kansas City, Kansas 66117

PRODUCT TRADE NAME:

EnviroKlean® BioKlean™ - Afterwash

I HAZARDOUS INGREDIENTS

CHEMICAL NAME (COMMON NAME) CAS NO. NFPA CODE ACGIH TLV/TWA OSHA PEL/TWA

Organic Acids*

1,0,0,

Not Listed

Not Listed

II PHYSICAL DATA

VAPOR VAPOR **EVAPORATION** BOILING **PRESSURE** DENSITY RATE POINT (°F) (mm Hg) (Air=1)(1=Butyl Acetate) Organic Acids N/A N/A N/A N/A

> **SPECIFIC GRAVITY**

SOLUBILITY IN WATER

APPEARANCE AND ODOR

3ioKlean™ - Afterwash

0.896 (approximately)

Complete

Tan powder, mild odor

V FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD):

None.

FLAMMABLE LIMITS:

No applicable information found.

EXTINGUISHING MEDIA:

Any media appropriate for surrounding the type of fire involving this product.

Specific chemical identity withheld as trade secret pursuant to OSHA regulations.

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in pressure demand or other positive pressure mode, and full body protective clothing when fighting fires. Water spray may be used to cool closed containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Reacts with most metals to release hydrogen gas which can form explosive mixtures with air. Extinguish all nearby sources of ignition.

V HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin, eyes, ingestion.

CARCINOGEN INFORMATION: Not listed (OSHA, IARC, NTP).

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: No applicable information found.

EFFECTS OF OVEREXPOSURE: Powder and dust can irritate the eyes. Prolonged contact with powder or dust may cause irritation to the skin. Ingestion may cause gastrointestinal irritation. Inhalation of powder or dust may irritate nasal and respiratory passages. Prolonged exposure may damage tooth enamel.

EYE CONTACT: Powder and dust can irritate the eyes.

SKIN CONTACT: Prolonged contact with powder or dust may cause irritation to the skin.

INHALATION: Powder or dust may irritate nasal and respiratory passages.

INGESTION: May cause gastrointestinal irritation.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Rinse eyes with large quantities of water for at least 15 minutes, holding eyelids apart to

ensure flushing of the entire eye surface. Get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing and flush exposed area with large quantities of water for at

least 15 minutes. Launder contaminated clothing before reuse. Discard contaminated shoes.

Get medical attention if irritation persists.

INHALATION: Remove person to fresh air. If breathing stops, administer artificial respiration, preferably

mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention immediately.

INGESTION: If conscious, give large quantities of water or milk. Do not induce vomiting. Get medical

attention immediately. Do not give anything by mouth to an unconscious or convulsing

person.

VI REACTIVITY DATA ST_ILITY: Stable. CONDITIONS TO AVOID: Contact with strong bases (alkali) can cause violent reaction, generating large amounts of heat. INCOMPATIBILITY (MATERIALS TO AVOID): Strong alkalis. HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Hydrogen gas when contacting metals. VII SPILL OR LEAK PROCEDURES

SPILL, LEAK AND WASTE DISPOSAL PROCEDURES: Evacuate immediate area when concentrated dust is present. Cleanup personnel must wear proper protective equipment. Sweep up and dispose of in DOT approved waste containers. Provide adequate ventilation. Extinguish all ignition sources.

WASTE DISPOSAL METHODS: Recovered solids or liquids may be sent to a licenses reclaimer or disposed of in a permitted waste management facility. Consult federal, state, and/or local authorities for approved procedure.

VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: If needed, use a NIOSH/MSHA approved dust respirator. Follow all applicable respirator use, standards, or regulations. (Also contact your safety equipment supplier for proper NIOSH/MSHA approved units.)

VENTILATION: Provide sufficient explosion-proof general and/or local exhaust ventilation to maintain exposure at lowest possible level.

PROTECTIVE CLOTHING: Normal work clothing, covering arms and legs.

PROTECTIVE GLOVES: Rubber type, neoprene or PVC with acceptable acid resistance (contact safety equipment supplier for approved gloves).

EYE PROTECTION: Chemical splash goggles and/or full face shield (eight inch minimum) in compliance with OSHA regulations. (Consult your safety equipment supplier for approved goggles.) Do not wear contact lenses because they may contribute to the severity of an eye injury.

OTHER PROTECTIVE EQUIPMENT: Acid-resistant rubber boots and headgear. Eyewash and safety shower.

IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Use proper safety equipment (see Section VIII) when handling. Store in a cool, well-ventilated area. Separate from strong alkalis. Store in proper acid-resistant containers such as rubber-lined steel, glass, or plastic.

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Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in the Data sheet must be observed. Do not cut, grind, weld, or drill on or near this container.

OTHER PRECAUTIONS: Do not get in eyes, on skin or on clothing. Avoid breathing dust. Provide ventilation sufficient to limit employee exposure to lowest possible level. Do not take internally. Wash thoroughly after handling.

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DATE OF PREPARATION: April 7, 1995